

**INTRODUCTORY COMMENTS FOR AMENDMENTS**

Please amend the claims in the manner indicated below. In the following amendments, an underline is used to indicate new text and deleted text is shown as stricken. Claims 3, 6, 13 and 16 were amended to correct any antecedent basis issues. Accordingly, it is believed that no new matter is added by the following amendments to the claims.

**LISTING OF THE CLAIMS**

1. (original) A system for printing images on a substrate, comprising:
  - a) a black ink-jet ink including:
    - i) a liquid vehicle including water, and from 15 wt% to 30 wt% organic solvent, wherein from 3 wt% to 10 wt% of the organic solvent is a methylated pentanetriol co-solvent, and
    - ii) from 1 wt% to 6 wt% of a dispersant-functionalized black carbon pigment; and
  - b) a printhead loaded with the black ink-jet ink which is configured to jet the black ink-jet ink at a firing frequency from 15 kHz to 25 kHz.
2. (original) The system of claim 1, wherein the carbon pigment is from about 5 nm to about 10  $\mu$ m in size.
3. (currently amended) The system of claim 1, wherein the liquid vehicle comprises from about 70 wt% to about 99 wt% of the ~~ink-jet ink composition~~ black ink-jet ink.
4. (original) The system of claim 1, wherein, in addition to the methylated pentanetriol, the organic solvent includes at least two other organic co-solvents, each being present at from about 1 wt% to about 10 wt%.
5. (original) The system of claim 1, further comprising from 0.001 wt% to 0.1 wt% surfactant.
6. (currently amended) The system of claim 1, wherein the ~~composition~~ ink is surfactant free.
7. (original) The system of claim 1, further comprising from 0.1 wt% to 4 wt% of an ammonium salt.

8. (original) The system of claim 1, wherein the methylated pentanetriol is 3-methyl-1,3,5-pentanetriol.

9. (original) The system of claim 1, wherein a dispersant precursor used to form the dispersant-functionalized black carbon pigment is an amino precursor selected from the group consisting of para-aminobenzoic acids, isophthalic acids, and triacids.

10. (original) The system of claim 1, wherein the firing frequency is from 18 kHz to 25 kHz.

11. (original) A method of rapidly printing a black ink-jet image, comprising ink-jetting a black ink-jet ink onto a media substrate at a firing frequency from 15 kHz to 25 kHz, said black ink-jet ink comprising:

- i) a liquid vehicle including water, and from 15 wt% to 30 wt% organic solvent, wherein from 3 wt% to 10 wt% of the organic solvent is a methylated pentanetriol co-solvent; and
- ii) from 1 wt% to 6 wt% of a dispersant-functionalized black carbon pigment.

12. (original) The method of claim 11, wherein the carbon pigment is from about 5 nm to about 10  $\mu$ m in size.

13. (currently amended) The method of claim 11, wherein the liquid vehicle comprises from about 70 wt% to about 99 wt% of the ~~ink-jet ink composition~~ black ink-jet ink.

14. (original) The method of claim 11, wherein, in addition to the methylated pentanetriol, the organic solvent includes at least two other organic co-solvents, each being present at from about 1 wt% to about 10 wt%.

15. (original) The method of claim 11, further comprising from 0.001 wt% to

0.1 wt% surfactant.

16. (currently amended) The method of claim 11, wherein the ~~composition~~ ink is surfactant free.

17. (original) The method of claim 11, further comprising from 0.1 wt% to 4 wt% of an ammonium salt.

18. (original) The method of claim 11, wherein the methylated pentanetriol is 3-methyl-1,3,5-pentanetriol.

19. (original) The method of claim 11, wherein a dispersant precursor used to form the dispersant-functionalized black carbon pigment is an amino precursor selected from the group consisting of para-aminobenzoic acids, isophthalic acids, and triacids.

20. (original) The method of claim 11, wherein the firing frequency is from 18 kHz to 25 kHz.

21. (previously presented) An ink-jet ink composition, comprising a mixture of:

- a) a liquid vehicle having from 15 wt% to 30 wt% organic solvent, wherein from 3 wt% to 10 wt% of the organic solvent is 3-methyl-1,3,5-pentanetriol;
- b) from 1 wt% to 6 wt% of a dispersant-functionalized black carbon pigment;
- and
- c) from 0.1 wt% to 4 wt% of an ammonium salt.

22. (original) The composition of claim 21, wherein the carbon pigment is from about 5 nm to about 10  $\mu$ m in size.

23. (original) The composition of claim 21, wherein the liquid vehicle comprises from about 70 wt% to about 99 wt% of the ink-jet ink composition.

24. (original) The composition of claim 1, wherein, in addition to the methylated pentanetriol, the organic solvent includes at least two other organic co-solvents, each being present at from about 1 wt% to about 10 wt%.

25. (original) The composition of claim 21, further comprising from 0.001 wt% to 0.1 wt% surfactant.

26. (original) The composition of claim 21, wherein the composition is surfactant free.

27. (original) The composition of claim 21, wherein the dispersant-functionalized carbon black is formed using a dispersant precursor selected from the group consisting of para-aminobenzoic acids, isophthalic acids, and triacids.